

1. A method, including steps of adjusting an aspect ratio of a display screen in response to a remote database, the database including information associating aspect ratio information with media streams.

2. A method as in claim 1, wherein said aspect ratio is further adjusted in response to an on screen display, said on screen display indicating placement for some combination of masks and sidebars.

3. A method as in claim 1, including at least one of the steps of adjusting the aspect ratio in response to an input from a viewer; and sending that input to the database.

4. A method as in claim 1, wherein the information associating aspect ratio information includes at least one of:

a preselected aspect ratio; and  
an adjustment from a known aspect ratio.

5. A method as in claim 1, wherein the steps of adjusting include automatically controlling one or more masks.

6. A method, including steps of presenting a media stream having a first aspect ratio R1 using a display screen having a second aspect ratio R2;

receiving information from a source external to the media stream, that information relating to R1; and

adjusting R2 in response to that information.

7. A method as in claim 6, wherein the steps of adjusting R2 include automatically moving masking.

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8. A method as in claim 6, including steps of contracting the display screen when the media stream includes a picture having a third aspect ratio  $R_3$ , with  $R_3 < R_1$ .

5 9. A method as in claim 6, including steps of expanding the display screen when the media stream includes a picture having a third aspect ratio  $R_3$ , with  $R_3 > R_1$ .

10 10. A method, including steps of  
recognizing a media stream with a first aspect ratio and user-interested viewable portion  $R$  embedded in a media stream having a second aspect ratio  $S$ , where  $S > R$ , whereby presentation of the media stream can be expanded to a relatively larger region of a display screen; and  
presenting the media stream in that relatively larger region.

15 11. A method as in claim 10, wherein a technique for embedding the first aspect ratio  $R$  includes letterboxing.

20 12. A method as in claim 10, wherein the first aspect ratio  $R$  is a known television standard.

13. A method as in claim 10, wherein the second aspect ratio  $S$  is a known movie standard.

25 14. A method, including steps of  
recognizing an element to be presented within a media stream, said element having a different aspect ratio from said media stream; and  
adjusting a target location for said element in response to an aspect ratio of that media stream.

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15. A method as in claim 14, wherein those steps of adjusting include adjusting masking of a display screen in response to said element and the media stream; and

5 positioning the element in an effective display region not blocked by masking.

16. A method as in claim 14, wherein said steps of adjusting include adjusting the aspect ratio in response to said element and the media stream; and

10 positioning the element in an effective display region not blocking any substantial portion of the media stream.

17. A method as in claim 14, wherein said steps of adjusting include positioning the target location in an effective display region not blocked by masking.

15 18. A method as in claim 14, wherein said steps of adjusting include positioning the target location in an effective display region not blocking any substantial portion of the media stream.

20 19. A method as in claim 14, wherein that element includes at least one of: a caption, a closed-caption, a subtitle, a translation, a ticker feed.

25 20. A method as in claim 1, wherein said steps of adjusting are responsive to a correlation between values in said database and DVD hash values.

30 21. A method, including steps of automatically positioning some combination of masks and sidebars for a display screen for a media presentation without regard for the aspect ratio of the media presentation, said positioning using absolute positional data values associated with said media presentation.

22. A method as in claim 21, wherein said positioning includes compensation for projector overscan.

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23. A method for adjusting the aspect ratio of a display including steps of  
identifying a media stream to be presented;  
querying a database for metadata associated with said media stream;  
parsing said metadata, said parsing yielding one or more informational  
5 components;  
interpreting at least one of said informational components; and  
moving one or more display masks in response to said interpreting, said  
display masks capable of obscuring and revealing some portion of said display.
- 10 24. A method of claim 23, wherein said display masks include one or  
more physical objects.
- 15 25. A method of claim 23, wherein said display mask includes an area of  
displayed light, said light of at least one hue determined to reduce screen burn-in at a  
transition boundary between an adjacently displayed image stream.
- 20 26. A method as in claim 23, wherein said identifying includes reading at  
least one DVD hash value, whereby a particular media stream is identified by computing  
said hash value as a part of said media stream and using said hash value as a key for said first  
database.
- 25 27. A method as in claim 23, wherein said identifying includes identifying  
media streams at bookmarks.
28. A method as in claim 23, wherein said identifying includes identifying  
media streams at watchpoints.
- 30 29. A method of claim 23, wherein said metadata includes some  
combination of: an aspect ratio, audio encoding specification, other device control  
information.

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30. Apparatus including

a database including information associating aspect ratio information with media streams;

5 memory or mass storage capable of receiving that information in response to one of those media streams; and

a masking controller capable of adjusting an aspect ratio of a display screen in response to information in that memory or mass storage.

10 31. The apparatus of claim 30, wherein said aspect ratio information is adjusted by an input from a viewer.

32. The apparatus of claim 30, wherein the information associating aspect ratio information includes at least one of:

a pre-selected aspect ratio; and

15 an adjustment from a known aspect ratio.

33. The apparatus of claim 30, wherein said adjusting includes automatically controlling the position of one or more masks or sidebars.

20 34. A method of doing business, including steps of providing access to information associating aspect ratio information with media streams; and collecting a fee in response to those steps of providing access.

25 35. A method of claim 34, wherein said information associating aspect ratio information with media streams includes data for controlling some combination of a set of masks and a set of sidebars, said set of masks and set of sidebars adjusting the aspect ratio of the viewable portion of a display screen.

30 36. An information signal maintained in memory, mass storage, or on a communication path, the information signal including a first media stream having a first aspect ratio R1, having been produced in response to a second media stream having a second aspect ratio R2, wherein

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R1 > R2;

the first media stream is relatively larger than the second media stream; and  
the first media stream does not include letterboxing.

5           37. A method, including adjusting the active area of a display in response to a remote first database, said first database including information associating some combination of aspect ratio information, horizontal size information, vertical size information, resolution, anamorphic compression, letterboxing with media streams.

10           38. A method as in claim 37, wherein said active area of said display is a reflective portion of said display visible to the human viewer.

          39. A method as in claim 37, wherein said active area of said display is an illuminated portion of said display visible to a human viewer.

15           40. A method as in claim 37, wherein said active area may be further adjusted in response to an onscreen display, said on screen display indicating placement for some combination of masks and sidebars.

20           41. A method as in claim 37, wherein said information in said first database indicates a portion of a video frame occupied by a desired picture, wherein an active area of the display is adjusted to present the desired picture and exclude a remainder of the video frame.

25           42. A method as in claim 37, wherein said information in said first database indicates a portion of a video frame occupied by a desired picture, whereby the active area of the display is adjusted by enlarging a projected image of said desired picture such that the active area contains the desired picture while excluding at least some portion of the video frame.

30           43. A method as in claim 42, wherein said information in said first database indicates that at least one video frame is letterboxed.

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44. A method as in claim 37 including identifying a particular media stream by computing a hash of a part of the media stream and using said hash as a key with said first database.

5 45. A method as in claim 37, wherein said steps of adjusting are also responsive to a logically local second database.

10 46. A method as in claim 45 wherein said second database includes information associating potentially active areas of said display with information in said first database.

15 47. A method as in claim 45 wherein said second database includes information associating potentially active areas of said display with at least one media stream, said information originally obtained dynamically during playback of said at least one media stream.

48. A method as in claim 45, wherein said second database includes information related to projector overscan.

20 49. A method as in claim 45, wherein information in said second database may be further adjusted in response to an on screen display and input from a human viewer.

25 50. A method as in claim 49, wherein said on screen display indicates placement for some combination of masks and sidebars.

30 51. A method, including selecting a target location on a display for a first element of a video stream in response to a remote first database, said first database including information associating some combination of aspect ratio, horizontal size, vertical size, resolution, anamorphic compression, letterboxing with a second element of a media stream.

52. A method as in claim 51 including adjusting an active area of said display in response to said target location.

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53. A method as in claim 52, wherein said active area is adjusted using some combination of masks and sidebars.

54. A method as in claim 52, wherein said first element is a motion picture and said second element includes some combination of a caption, a closed-caption, a subtitle, a translation, a ticker feed.

55. A method as in claim 37, wherein said steps of adjusting are responsive to a portion of the media stream being viewed.

56. A method as in claim 37, wherein said steps of adjusting are responsive to the triggering of one or more watchpoints.

57. A method for adjusting the aspect ratio of a display including steps of determining from a media stream to be presented the aspect ratio of said media stream;

calculating at least one informational component based on said determining; moving one or more display masks in response to said calculating, said display masks capable of obscuring and revealing some portion of said display.

58. Apparatus as in claim 30, wherein said database includes information associating some combination of at least one of aspect ratio information, horizontal size information, vertical size information, resolution, anamorphic compression, and letterboxing with at least one media stream.

59. The apparatus of claim 58, wherein said controller instructs movement of some combination of masks and sidebars, said masks and sidebars capable of adjusting the active area of a display screen.

60. A method of doing business as in claim 34, wherein the steps of providing access include providing access to a database, the database including at least some information associating some combination of at least one of aspect ratio information,



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horizontal size information, vertical size information, resolution, anamorphic compression, and letterboxing with at least one media stream.

5 61. A method as in claim 60, wherein said information includes data for controlling some combination of masks and sidebars, said masks and sidebars capable of adjusting the active area of a display screen.

10 62. A method as in claim 1, wherein said steps of adjusting include blanking an inactive area of said display with a color that minimizes burn-in when displayed.

15 63. A method, including steps of automatically determining the aspect ratio of a media stream; and adjusting an aspect ratio of a display screen in response to said step of automatically determining.

20 64. Apparatus, including means for adjusting an aspect ratio of a display screen in response to a remote database, the database including information associating aspect ratio information with media streams.

25 65. Apparatus as in claim 64, wherein said aspect ratio is further adjusted in response to an on screen display, said on screen display indicating placement for some combination of masks and sidebars.

30 66. Apparatus as in claim 64, including means for adjusting the aspect ratio in response to an input from a viewer; and means for sending that input to the database.

67. Apparatus as in claim 64, wherein the information associating aspect ratio information includes at least one of:  
a preselected aspect ratio; and  
an adjustment from a known aspect ratio.

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68. Apparatus as in claim 64, wherein said means for adjusting includes automatically controlling one or more masks.

69. Apparatus, including

5 means for presenting a media stream having a first aspect ratio R1 using a display screen having a second aspect ratio R2;

means for receiving information from a source external to the media stream, that information relating to R1; and

means for adjusting R2 in response to that information.

10 70. Apparatus as in claim 69, wherein said means for adjusting R2 includes automatically moving masking.

15 71. Apparatus as in claim 69, including means for contracting the display screen when the media stream includes a picture having a third aspect ratio R3, with  $R3 < R1$ .

20 72. Apparatus as in claim 69, including means for expanding the display screen when the media stream includes a picture having a third aspect ratio R3, with  $R3 > R1$ .

25 73. Apparatus, including means for recognizing a media stream with a first aspect ratio R and user-interested viewable portion embedded in that media stream having a aspect ratio S not equal to R, whereby presentation of the media stream can be expanded to a relatively larger region of a display screen; and

means for presenting the media stream in that relatively larger region.

30 74. Apparatus as in claim 73, wherein means for embedding the user-interested viewable portion includes letterboxing.

75. Apparatus as in claim 73, wherein the first aspect ratio R includes a known television standard.

76. Apparatus as in claim 73, wherein the second aspect ratio S includes a known movie standard.

77. Apparatus, including

5 means for recognizing an element to be presented within a media stream, said element having a different aspect ratio from said media stream; and

means for adjusting a target location for said element in response to an aspect ratio of that media stream.

10 78. Apparatus as in claim 77, wherein said means for adjusting includes

means for adjusting masking of a display screen in response to said element and the media stream; and

means for positioning the element in an effective display region not blocked by masking.

15 79. Apparatus as in claim 77, wherein said means for adjusting includes

means for adjusting the aspect ratio in response to said element and the media stream; and

20 means for positioning the element in an effective display region not overlapping any substantial portion of the media stream.

80. Apparatus as in claim 77, wherein said means for adjusting includes

means for positioning the target location in an effective display region not blocked by masking.

25 81. Apparatus as in claim 77, wherein said means for adjusting includes

means for positioning the target location in an effective display region not overlapping any substantial portion of the media stream.

30 82. Apparatus as in claim 77, wherein that element includes at least one

of: a caption, a closed-caption, a subtitle, a translation, a ticker feed.

83. Apparatus as in claim 64, wherein said means for adjusting is responsive to a correlation between values in said database and DVD hash values.

84. Apparatus, including

means for automatically positioning some combination of masks and sidebars for a display screen for a media presentation without regard for the aspect ratio of the media presentation, said positioning using absolute positional data values associated with said media presentation.

85. Apparatus as in claim 84; wherein said means for positioning includes compensation for projector overscan.

86. Apparatus for adjusting the aspect ratio of a display including means for identifying a media stream to be presented;

means for querying a database for metadata associated with said media stream;

means for parsing said metadata, said parsing yielding one or more informational components;

means for interpreting at least one of said informational components; and

means for moving one or more display masks in response to said interpreting, said display masks capable of obscuring and revealing some portion of said display.

87. Apparatus as in claim 86, wherein said means for identifying includes reading at least one DVD hash value, whereby a particular media stream is identified by computing said hash value as a part of said media stream and using said hash value as a key for said first database.

88. Apparatus as in claim 86, wherein said means for identifying includes means for identifying media streams at bookmarks.

89. Apparatus as in claim 86, wherein said means for identifying includes means for identifying media streams at watchpoints.

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90. Apparatus of claim 86, wherein said metadata includes some combination of: an aspect ratio, audio encoding specification, other device control information.

5           91. Apparatus, including means for adjusting the active area of a display in response to a remote first database, said first database including information associating some combination of aspect ratio information, horizontal size information, vertical size information, resolution, anamorphic compression, letterboxing with media streams.

10           92. Apparatus as in claim 91, wherein said active area of said display is a reflective portion of said display visible to the human viewer.

          93. Apparatus as in claim 91, wherein said active area of said display is an illuminated portion of said display visible to a human viewer.

15           94. Apparatus as in claim 91, wherein said active area may be further adjusted in response to an onscreen display, said on screen display indicating placement for some combination of masks and sidebars.

20           95. Apparatus as in claim 91, wherein said information in said first database indicates a portion of a video frame occupied by a desired picture, wherein an active area of the display is adjusted to present the desired picture and exclude a remainder of the video frame.

25           96. Apparatus as in claim 91, wherein said information in said first database indicates a portion of a video frame occupied by a desired picture, whereby the active area of the display is adjusted by enlarging a projected image of said desired picture such that the active area contains the desired picture while excluding at least some portion of the video frame.

30           97. Apparatus as in claim 96, wherein said information in said first database indicates that at least one video frame is letterboxed.

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98. Apparatus as in claim 91 including means for identifying a particular media stream by computing a hash of a part of the media stream and using said hash as a key with said first database.

5 99. Apparatus as in claim 91, wherein said means for adjusting are also responsive to a logically local second database.

10 100. Apparatus as in claim 99 wherein said second database includes information associating potentially active areas of said display with information in said first database.

15 101 Apparatus as in claim 99 wherein said second database includes information associating potentially active areas of said display with at least one media stream, said information originally obtained dynamically during playback of said at least one media stream.

102. Apparatus as in claim 99, wherein said second database includes information related to projector overscan.

20 103. Apparatus as in claim 99, wherein information in said second database may be further adjusted in response to an on screen display and input from a human viewer.

25 104. Apparatus as in claim 103, wherein said on screen display indicates placement for some combination of masks and sidebars.

30 105. Apparatus, including means for selecting a target location on a display for a first element of a video stream in response to a remote first database, said first database including information associating some combination of aspect ratio, horizontal size, vertical size, resolution, anamorphic compression, letterboxing with a second element of a media stream.

106. Apparatus as in claim 105 including means for adjusting an active area of said display in response to said target location.

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107. Apparatus as in claim 106, wherein said active area is adjusted using some combination of masks and sidebars.

5 108. Apparatus as in claim 105, wherein said second element is a motion picture and said first element includes some combination of a caption, a closed-caption, a subtitle, a translation, a ticker feed.

10 109. Apparatus as in claim 91, wherein said means for adjusting are also responsive to at least a portion of the media stream being viewed.

110. Apparatus as in claim 91, wherein said means for adjusting are also responsive to triggering of one or more watchpoints.

15 111. Apparatus as in claim 64, said means for adjusting including means for blanking an inactive area of said display with a color that minimizes burn-in when displayed.

20 112. Apparatus, including means for automatically determining the aspect ratio of a media stream; and means for adjusting an aspect ratio of a display screen in response to said means for automatically determining.

25 113. An information signal maintained in memory, mass storage, or on a communication path, the information signal including a set of metadata associated with a media stream.

114. An information signal as in claim 113, wherein the metadata include instructions interpretable by a viewer device.

30 115. An information signal as in claim 114, wherein the viewer device includes at least one of a mask controller, one or more lights, one or more fans, one or more audio systems, one or more heating systems, one or more cooling systems.

116. An information signal as in claim 113, wherein the metadata is updateable.

117. An information signal as in claim 116, wherein the update is responsive to one or more user inputs.

118. An information signal as in claim 113, wherein the metadata is generated, at least in part, in response to the media stream.

119. An information signal as in claim 118, wherein the metadata includes at least one aspect ratio associated with the media stream.

120. An information signal as in claim 113, including a request identifying the media stream; wherein the metadata includes at least one aspect ratio associated with the media stream.

121. An information signal as in claim 113, including a response including at least some of the metadata; wherein the metadata includes at least one aspect ratio associated with the media stream.

122. An information signal maintained in a memory, mass storage, or on a communication path, the information signal including a set of displayable reference rectangles; the rectangles each predisposed to an aspect ratio; and the aspect ratio selectable by an operator.

123. An information signal maintained in a memory, mass storage, or on a communication path, the information signal including one or more mask values, having been produced in response to the manual positioning of one or more masks;



one or more sidebar values, having been produced in response to the manual positioning of one or more sidebars; and

a combination of said mask values and said sidebar values generating an aspect ratio.

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124. Apparatus, including

means for generating positional data for a set of masks and sidebars, said means for generating responsive to manual positioning of said set of masks and sidebars by an operator;

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means for calculating an aspect ratio from said positional data; and  
means for storing said positional data in a database.

125. Apparatus, including

means for generating a request, said request indicating a media stream;

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means for transmitting said request from a first server to a second server; and

means for identifying at least one media stream and at least one set of metadata associated with said request, said metadata including at least one set of aspect ratio information.

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126. Apparatus of claim 125, including

means for generating a response in answer to said request, said response including at least one set of aspect ratio information;

means for transmitting said response from said second server to said first server;

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means for parsing said response, said parsing extracting said at least one set of aspect ratio information from said response;

means for interpreting said aspect ratio information at a mask controller; and

means for moving a set of masks responsive to said interpreting.

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127. Apparatus, including

means for analyzing a media stream, said analyzing generating positional data indicating a user-interested viewable portion and a user-uninterested viewable portion; and

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means for placement of a set of masks responsive to said positional data, said placement obscuring said user-uninterested viewable portion.

5 128. A method of claim 29, wherein a portion of said metadata is used to control one or more lights.

129. A method of claim 29, wherein a portion of said metadata is used to control one or more cooling systems.

10 130. A method of claim 29, wherein a portion of said metadata is used to control one or more audio systems.

15 131. Apparatus of claim 90, wherein a portion of said metadata is used to control one or more lights.

132. Apparatus of claim 90, wherein a portion of said metadata is used to control one or more cooling systems.

20 133. Apparatus of claim 90, wherein a portion of said metadata is used to control one or more audio systems.